3.3.5 CULTURAL RESOURCES

Issues	Potentially Significant Impact	Less Than Significant With Mitigation Incorporated	Less Than Significant Impact	No Impact
The impact criteria established by CEQA is used to make the following determinations.				
Would the project:				
(a) Cause a substantial adverse change in the significance of a historical resource as defined in §15064.5?	☐	☐	☐	☒
(b) Cause a substantial adverse change in the significance of a unique archaeological resource pursuant to §15064.5?	☐	☒	☐	☐
(c) Directly or indirectly destroy a unique paleontological resource or site or unique geologic feature?	☐	☐	☐	☒
(d) Disturb any human remains, including those interred outside of formal cemeteries?	☐	☒	☐	☐

Environmental Setting

Natural Setting

Topographically, the Project area is situated in San Francisco Bay, with the land portion on the shore of the Bay in western Contra Costa County in the Bay Area-Delta Bioregion (as defined by the State's Natural Communities Conservation Program). This Bioregion is comprised of a variety of natural communities, which range from salt marshes to chaparral to oak woodlands. Originally, vegetation at this site would have been a mosaic of tidal brackish marshes, native coastal prairie, coastal scrub, and oak woodlands. Dominant flora would have included Coastal live oak, Buckeye, Willow, Western Sycamore, tule, and sedges. Important animal food resources for past

inhabitants of the Study Area would have included salmon, Bay Mussel, California Oyster, rock-nesting waterfowl, and sea mammals.

Climate in the San Francisco Bay Area is characterized as Mediterranean, in that summers are dry and warm, and winters are cool and wet. The mean annual rainfall in the area is 23.2 inches, based on data collected between 1950 and 2007 (WRCC 2008). Approximately 83 percent of the rainfall falls between November and March.

Geology and Physiographic Context

The Project area is located within the southern portion of the Coast Range geomorphic province, which extends from the Oregon state line to the Santa Ynez fault on the south and consists of a series of northwest trending mountain ranges. Much of the Coast Range province is composed of marine and terrestrial sedimentary deposits underlain by either granitic rock of the Salinian Block or, as in the case of the Project area, the Jurassic to Upper Cretaceous Franciscan formation (Graymer et al. 1994).

Prehistoric Context

A framework for the interpretation of the San Francisco Bay and North Coast Ranges prehistory is provided by Fredrickson (1974), who divided human history in California into three broad periods: the Paleoindian period, the Archaic period, and the Emergent period. This scheme used sociopolitical complexity, trade networks, population, and the introduction and variations of artifact types to differentiate between cultural units. The significance of prehistoric sites rests partly on their ability to help archaeologists explain the reasons for these changes in different places and at different times in prehistory. The scheme, with minor revisions (Fredrickson 1994), remains the dominant framework for prehistoric archaeological research in this region.

The Paleoindian period (10,000 to 6,000 B.C.) was characterized by small, highly mobile groups occupying broad geographic areas. During the Archaic period, consisting of the Lower Archaic period (6000 to 3000 B.C.), Middle Archaic period (3000 to 500 B.C.), and Upper Archaic period (500 B.C. to A.D. 1000), geographic mobility may have continued, although groups began to establish longer-term base camps in localities from which a more diverse range of resources could be exploited. The addition of milling tools, obsidian and chert concave-base points, and the occurrence of sites in a wider range of environments suggests that the economic base was more diverse. By the Upper Archaic, mobility was being replaced by a more sedentary adaptation with the development of numerous small villages, and with the beginnings of

a more complex society, an economy began to emerge. During the Emergent period (A.D. 1000 to 1800), social complexity developed toward the ethnographic pattern of large, central villages where political leaders resided, associated hamlets and specialized activity sites. Artifacts associated with the period include the bow and arrow, small corner-notched points, mortars and pestles, and a diversity of beads and ornaments (Fredrickson 1994; Gerike et al. 1986).

Ethnographic Setting

The Project area is within the traditional territory of the Costanoan or Ohlone peoples (Levy 1978). The people collectively called the Costanoan by ethnographers were actually distinct sociopolitical groups who spoke at least eight languages of the same Penutian language group. The speakers of the Costanoan languages occupied a large territory from San Francisco Bay in the north to Big Sur and Salinas Rivers in the south. The primary sociopolitical unit was the tribelet, or village community, which was overseen by one or more chiefs. In 1770, the Costanoan-speaking people lived in approximately 50 tribelets with population estimates ranging from 7,000 (Kroeber 1925:464) to 10,000 (Levy 1978:486).

The Project area is located in the bordering territory of the Chochenyo and Karkin languages. The ethnographic village closest to the Project area was xučyun located south of Wildcat Creek southwest of the current Project area. Economically, the Costanoan engaged in hunting and gathering in a territory that held both coastal and open valley environments containing a wide variety of resources, including grass seeds, acorns, bulbs and tubers, bear, deer, elk, antelope, a variety of bird species, rabbit and other small mammals. The Costanoan-speaking peoples acknowledged private ownership of goods and songs, and village ownership of rights to land and/or natural resources; they appear to have aggressively protected their village territories, requiring monetary payment for access rights in the form of clamshell beads and even shooting trespassers if caught. After European contact, Costanoan society was severely disrupted by missionization, disease, and displacement. Seven missions were established within Costanoan territory between 1770 and 1797. Baptismal records show that the last Costanoan people living an aboriginal existence had disappeared by 1810 and that by 1832, the population had dropped to less than 2,000. In 1971, descendants of Costanoan-speaking peoples formed the Ohlone Indian Tribe and received title to the Ohlone Indian cemetery at Mission San Jose.

Historic-period Overview

The Spanish first explored Northern California during the latter part of the 18th century. It is estimated that, at the time of European contact, between 7,000 and 10,000 Native Americans inhabited the coastal area between Big Sur in Monterey County and the San Francisco Bay. Native American shellmounds once dotted the shoreline of San Francisco Bay. In 1776, Mission Dolores, also known as Mission San Francisco de Asis, was founded near the pueblo of Yerba Buena in present-day San Francisco. The mission had a difficult time retaining its convert subjects, and the mission's influence declined rapidly after secularization.

The following Project-specific history is taken from White (2005).

The American era in San Francisco Bay area history began with fur trading in the 1820s, but Americans arrived in large numbers only after the discovery of gold at Sutter's Mill in 1848. This economic focus was relatively short-lived, but supply and support industries were responsible for the development of both Sacramento and San Francisco. Early activities on the eastern shore of the bay included ranching and later, development of petroleum resources. Lone Tree Point was within the Pinole Rancho, confirmed to M.A.M. de Richardson in 1865. The Union Oil Company refinery at Oleum was constructed in 1895; it was the first oil refinery in Contra Costa County, and the largest of its kind on the coast, in 1897. By 1902 the Southern Pacific Railroad was in place along the San Pablo Bay shoreline, and the United States Geological Survey (USGS) Napa Quadrangle map of that date shows the little known town of Rodeo. Oil tanks were in place between Lone Tree Point and Oleum by 1912, according to Charles E. Weaver's Geological Map of the Mare Island Quadrangle, and the town of Hercules is shown as well. Office of Historic Preservation data for Contra Costa County, however, show that several properties in the town of Hercules date back to the late nineteenth century. For example, the Ellerhorst Home on Hercules Avenue was built in 1860. This property, along with numbers of other structures in Hercules, is listed on the California Register of Historic Properties. The Hercules Powder Company plant, on State highway 80, was built in 1881.

Regulatory Setting

Federal

Section 106 (Code of Federal Regulations [CFR] 36 Part 800) of the National Historic Preservation Act (NHPA) would apply if Federal permits are required. Therefore, the

National Register of Historic Places eligibility criteria are discussed below as they provide the basis for analyzing the significance of cultural resources.

First authorized by the Historic Sites Act of 1935, the National Register of Historic Places (National Register) was established by the NHPA in 1966. Its purpose is to act as "an authoritative guide to be used by Federal, State, and local governments, private groups and citizens to identify the Nation's historic resources and to indicate what properties should be considered for protection from destruction or impairment" (CFR 36 section 60.2). The National Register recognizes both historical-period and prehistoric archaeological properties that are significant at the national, State, and local levels.

To be eligible for listing in the National Register, a resource must be significant in American history, architecture, archaeology, engineering, or culture. Districts, sites, buildings, structures, and objects of potential significance must meet one or more of the following four established criteria (U.S. Department of the Interior 1995):

A. Are associated with events that have made a significant contribution to the broad patterns of our history;

B. Are associated with the lives of persons significant in our past;

C. Embody the distinctive characteristics of a type, period, or method of construction or that represent the work of a master, or that possess high artistic values, or that represent a significant and distinguishable entity whose components may lack individual distinction; or

D. Have yielded, or may be likely to yield, information important in prehistory or history.

Unless the property possesses exceptional significance, it must be at least 50 years old to be eligible for National Register listing (U.S. Department of the Interior 1995).

In addition to meeting the criteria of significance, a property must have integrity. Integrity is defined as "the ability of a property to convey its significance" (U.S. Department of the Interior 1995). The National Register recognizes seven qualities that, in various combinations, define integrity. To retain historic integrity a property must possess several, and usually most, of these seven aspects. Thus, the retention of the specific aspects of integrity is paramount for a property to convey its significance. The seven factors that define integrity are location, design, setting, materials, workmanship, feeling, and association.

A variety of Federal statutes specifically address paleontological resources. They are generally applicable to a project if that project includes federally owned or federally managed lands or involves a Federal agency license, permit, approval, or funding. Federal legislative protection for paleontological resources stems from the Antiquities Act of 1906 (PL 59-209; 16 United States Code 431 et. seq.; 34 Stat. 225), which calls for protection of historic landmarks, historic and prehistoric structures, and other objects of historic or scientific interest on Federal lands.

State

The State implements the NHPA through its statewide comprehensive cultural resources surveys and preservation programs. The California Office of Historic Preservation (OHP), as an office of the California Department of Parks and Recreation, implements the policies of the NHPA on a statewide level. The OHP also maintains the California Historic Resources Inventory. The State Historic Preservation Officer (SHPO) is an appointed official who implements historic preservation programs within the State's jurisdictions.

California Register of Historical Resources

The California Register of Historical Resources (California Register) is "an authoritative listing and guide to be used by State and local agencies, private groups, and citizens in identifying the existing historical resources of the State and to indicate which resources deserve to be protected, to the extent prudent and feasible, from substantial adverse change." (California Public Resources Code [PRC] section 5024.1[a]). The criteria for eligibility for the California Register are based upon National Register criteria (California PRC section 5024.1[b]). Certain resources are determined by the statute to be automatically included in the California Register, including California properties formally determined eligible for, or listed in, the National Register of Historic Places.

To be eligible for the California Register of Historical Resources, a prehistoric or historical-period property must be significant at the local, State, and/or Federal level under one or more of the following criteria:

1. Is associated with events that have made a significant contribution to the broad patterns of California's history and cultural heritage;

2. Is associated with the lives of persons important in our past;

3. Embodies the distinctive characteristics of a type, period, region, or method of construction, or represents the work of an important creative individual, or possesses high artistic values; or

4. Has yielded, or may be likely to yield, information important in prehistory or history.

A resource eligible for the California Register must meet one of the criteria of significance described above, and retain enough of its historic character or appearance (integrity) to be recognizable as a historical resource and to convey the reason for its significance. It is possible that a historic resource may not retain sufficient integrity to meet the criteria for listing in the National Register, but it may still be eligible for listing in the California Register.

Additionally, the California Register consists of resources that are listed automatically and those that must be nominated through an application and public hearing process. The California Register automatically includes the following:

- California properties listed on the National Register of Historic Places and those formally Determined Eligible for the National Register of Historic Places;
- California Registered Historical Landmarks from No. 770 onward; and
- Those California Points of Historical Interest that have been evaluated by the OHP and have been recommended to the State Historical Commission for inclusion on the California Register.

Other resources that may be nominated to the California Register include:

- Historical resources with a significance rating of Category 3 through 5 (those properties identified as eligible for listing in the National Register of Historic Places, the California Register of Historical Resources, and/or a local jurisdiction register);
- Individual historical resources;
- Historical resources contributing to historic districts; and
- Historical resources designated or listed as local landmarks, or designated under any local ordinance, such as an historic preservation overlay zone.

California Environmental Quality Act

The CEQA is the principal statute governing environmental review of projects occurring in the State. The CEQA requires lead agencies to determine if a proposed project would have a significant effect on archaeological resources. The CEQA is codified at Public Resources Code section 21000 et seq. As defined in section 21083.2 of CEQA, a "unique" archaeological resource is an archaeological artifact, object, or site, about which it can be clearly demonstrated that without merely adding to the current body of knowledge, there is a high probability that it meets any of the following criteria:

- Contains information needed to answer important scientific research questions and there is a demonstrable public interest in that information;
- Has a special and particular quality such as being the oldest of its type or the best available example of its type; or
- Is directly associated with a scientifically recognized important prehistoric or historic event or person.

In addition, the State CEQA Guidelines recognize that certain historical resources may also have significance. The Guidelines recognize that an historical resource includes: (1) a resource in the California Register of Historical Resources; (2) a resource included in a local register of historical resources, as defined in PRC section 5020.1(k) or identified as significant in a historical resource survey meeting the requirements of PRC section 5024.1(g); and (3) any object, building, structure, site, area, place, record, or manuscript which a lead agency determines to be historically significant or significant in the architectural, engineering, scientific, economic, agricultural, educational, social, political, military, or cultural annals of California by the lead agency, provided the lead agency's determination is supported by substantial evidence in light of the whole record.

If a lead agency determines that an archaeological site is an historical resource, the provisions of section 21084.1 of CEQA and section 15064.5 of the State CEQA Guidelines apply. If an archaeological site does not meet the criteria for an historical resource contained in the State CEQA Guidelines, then the site is to be treated in accordance with the provisions of CEQA section 21083, which is a unique archaeological resource. The State CEQA Guidelines note that if an archaeological resource is neither a unique archaeological nor an historical resource, the effects of the project on those resources shall not be considered a significant effect on the environment (State CEQA Guidelines section 15064.5(c)(4)).

Senate Bill (SB) 18

Effective January 2005 and in conformance with Senate Bill 18, which was signed into law by the Governor of California in September 2004, on or after March 1, 2005, local governments are required to consult with tribes before making certain planning decisions and to provide notice to tribes at certain key points in the planning process. The intent is to "provide California Native American tribes an opportunity to participate in local land use decisions at an early planning stage, for the purpose of protecting, or mitigating impacts to, cultural places" (Governor's Office of Planning and Research 2005).

According to the *Tribal Consultation Guidelines: Supplement to General Plan Guidelines* (Governor's Office of Planning and Research 2005), the following identifies the contact and notification responsibilities of local governments:

- Prior to the adoption or any amendment of a general plan or specific plan, a local government must notify the appropriate tribes (on the contact list maintained by the Native American Heritage Commission [NAHC]) of the opportunity to conduct consultations for the purpose of preserving, or mitigating impacts to, cultural places located on land within the local government's jurisdiction that is affected by the proposed plan adoption or amendment. Tribes have 90 days from the date on which they receive notification to request consultation, unless a shorter timeframe has been agreed to by the tribe (Government Code section 65352.3).

- Prior to the adoption or substantial amendment of a general plan or specific plan, a local government must refer the proposed action to those tribes that are on the NAHC contact list and have traditional lands located within the city or county's jurisdiction. The referral must allow a 45-day comment period (Government Code section 65352). Notice must be sent regardless of whether prior consultation has taken place. Such notice does not initiate a new consultation process.

- Local government must send a notice of a public hearing, at least 10 days prior to the hearing, to tribes who have filed a written request for such notice (Government Code section 65092).

Paleontological Resources

Paleontological resources are also afforded protection by CEQA. Appendix G (Part V) of the CEQA Guidelines provides guidance relative to significant impacts on paleontological resources, stating that a project will normally result in a significant impact on the environment if it will "…disrupt or adversely affect a paleontologic

resource or site or unique geologic feature, except as part of a scientific study." Section 5097.5 of the Public Resources Code specifies that any unauthorized removal of paleontological remains is a misdemeanor. Further, the California Penal Code section 622.5 sets the penalties for the damage or removal of paleontological resources.

Professional Standards

The Society for Vertebrate Paleontology (SVP) has established standard guidelines for acceptable professional practices in the conduct of paleontological resource assessments and surveys, monitoring and mitigation, data and fossil recovery, sampling procedures, and specimen preparation, identification, analysis, and curation. Most practicing professional paleontologists in the nation adhere closely to the SVP's assessment, mitigation, and monitoring requirements as specifically provided in its standard guidelines. Most California State regulatory agencies accept the SVP standard guidelines as a measure of professional practice.

Impact Analysis and Mitigation

Impact Discussion

(a) Because there are no historic structures present at the site due to the recent age of the current facilities, there would be no impact on historic structures (White 2005). (No Impact)

(b) A Project-specific cultural resource assessment was conducted by David R.M. White, Ph.D. in August 2005. In addition, White conducted a records search that revealed that some, although, not all of the Project area had been surveyed for archaeological resources both on and off-shore. The records search conducted by White in 2005 also revealed that one prehistoric archaeological site (CA-CCo-258/P-07-000138) consisting of a shellmound first recorded in 1907 by N.C. Nelson, and later relocated by Western Anthropological Research in 1998, was in close vicinity to the Project although the site had been heavily disturbed by the Western Oil Refinery. Although there were no previously recorded submerged cultural resources directly within the Project footprint, four possible shipwrecks were within the vicinity of the Project (White 2005). Although not addressed in the cultural report for the Project, remote sensing of the area by Fugro conducted specifically for the Project identified two submerged non-metallic mounds near the wharf area that were not associated with the existing structures.

Impact CUL-1: Potential Impacts to cultural resources.

Although there are no previously recorded cultural resources in the Project area, a Project-specific field survey was conducted. In addition, the remote sensing survey identified two anomalies that have yet to be inspected. Although not part of the Project footprint, anchoring of barges and/or vibration of the seabed from demolition activities may impact undiscovered resources. (Potentially Significant, Class II)

Mitigation Measures for Impact CUL-1:

MM CUL-1a. Maritime Surveys. Prior to initiation of deconstruction activities, the two anomalies recorded by Fugro shall be inspected by a qualified archaeologist to determine if they are cultural in nature. If this inspection determines that there are cultural resources that may be affected, avoidance and site protection measures shall be developed in consultation with the CSLC. Avoidance measures may include marking the locations of the resources with buoys and delineating a "no anchoring area" within 200 feet of the resources, and/or limiting the use of a vibratory extractor for pile removal, if the inspection determines that the resources would be adversely affected.

MM CUL-1b. Accidental Discoveries. Any accidental discovery of cultural resources during deconstruction shall be evaluated by a qualified archaeologist. If the find is determined to be potentially significant, the archaeologist, in consultation with the CSLC and the appropriate Native American group(s), shall develop a treatment plan. All work in the immediate vicinity of the unanticipated discovery shall cease until the qualified archaeologist has evaluated the discovery, or the treatment plan has been implemented.

Rationale for Mitigation

These mitigation measures would minimize impacts if previously undiscovered cultural resources are encountered. Impacts would be reduced to less than significant.

(c) Because the proposed ground disturbance would occur only in upper layers of Bay sediment, there is little to no chance the proposed Project will impact fossil resources. (No Impact)

(d) The discovery of human remains is unlikely within the Project area because most of the Project work occurs in the water and the work at the on-shore vault occurs in ground already highly disturbed. However, since the nature of the proposed Project would involve ground-disturbing activities, it is possible that such actions could unearth, expose, or disturb previously unknown human remains.

Impact CUL-2: Potential Impacts to human remains.

If unknown human remains are encountered during Project activities, potentially significant impacts could occur. (Potentially Significant, Class II)

Mitigation Measures for Impact CUL-2:

MM CUL-2. Measures for Human Remains. If human remains are encountered unexpectedly during excavation or backfilling activities, State Health and Safety Code section 7050.5 requires that no further disturbance shall occur until the County Coroner has made the necessary findings as to origin and disposition pursuant to PRC section 5097.98. If the remains are determined to be of Native American descent, the Coroner has 24 hours to notify the NAHC. The NAHC will then identify the person(s) thought to be the Most Likely Descendent of the deceased Native American, who will then help determine what course of action shall be taken in dealing with the remains.

Rationale for Mitigation

This mitigation measures would minimize impacts if human remains are discovered. The impact would be reduced to less than significant.